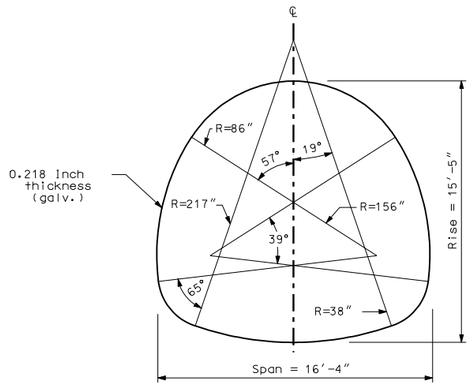
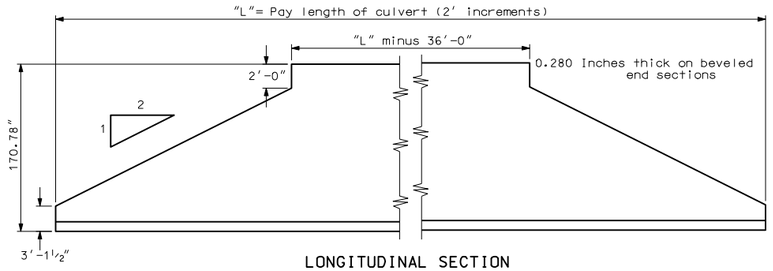
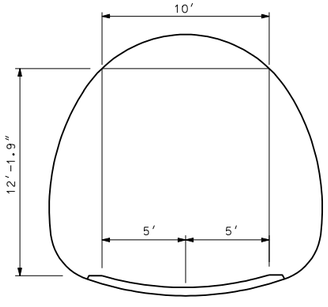
STRUCTURAL PLATE PIPE
JUNIOR INTERCHANGE
WITH CONCRETE FLOOR
(STRUTTED)



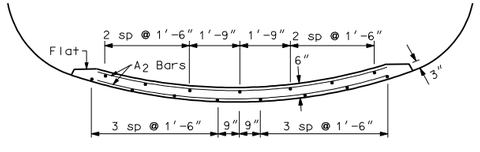
PIPE SECTION
(Showing inside dimensions)



LONGITUDINAL SECTION

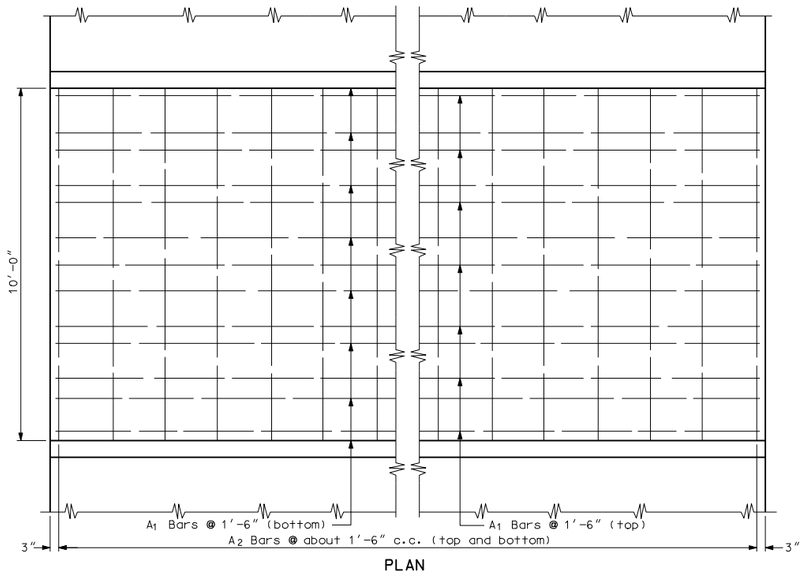


PIPE SECTION
(Showing concrete floor & clearance)

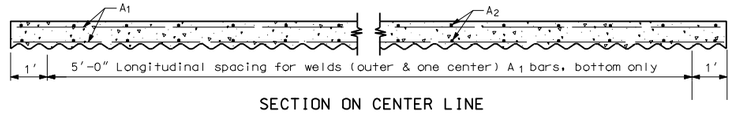


SECTION OF CONCRETE FLOOR

NOTE:
The American Association of State Highway and Transportation Officials Specification requirement that, "Single plates shall weigh not more than 750 pounds," shall be waived.



PLAN
(Concrete floor)



SECTION ON CENTER LINE

NOTES:

Structural Plate Pipe Arches shall conform to the requirements listed and shown on this sheet and to the American Association of State Highway and Transportation Officials "Standard Specifications for Highway Bridges".

Bend A2 bars in field to fit curve of pipe culvert. Use 1′-8″ lap to splice all A1 bars over 40 feet long.

The outer and center line A1 bars shall be welded to pipe corrugation at 5′-0″ intervals with 1″x¼″ fillet welds.

All field welding shall be considered incidental to the price bid per lineal foot of Structural Plate Pipe-Junior Interchange.

All concrete shall be Class AE-3 and shall be compacted by vibration.

The cost of the reinforced concrete floor shall be included in the unit price bid for Structural Plate Pipe-Junior Interchange.

Concrete floor shall not be constructed until the backfilling of the pipe has been completed. Sec. 638.03 D of Std. Specs. shall be modified in so far that no lift shall exceed 6″ at any time and each layer shall extend the full length of the pipe. The Engineer shall inspect structure during backfill operations to assure that no side shift occurs and that structure maintains its proper shape and position.

Allowable fill over pipe
(including surfacing)
Minimum - 4 feet
Maximum - 15 feet

QUANTITIES			
BAR	SIZE	LENGTH	SHAPE
A_1	½″Ø	Variable	Str.
A_2	½″Ø	10′-0″	Str.

QUANTITIES PER FOOT OF LENGTH	
REINFORCING STEEL	CONCRETE
LBS.	CU. YD.
20.07	0.225
Add 1 lb. per bar splice	

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
10-1-86	
REVISIONS	
DATE	CHANGE
07-23-93	Notes
06-03-03	Layout revision
12-01-04	PE Stamp added

This document was originally issued and sealed by MARK S GAYDOS, Registration Number PE-4518, on 12/01/04 and the original document is stored at the North Dakota Department of Transportation